

SR 162 Sumner to Orting Corridor Study

Stakeholder Committee Meeting #4

Tuesday, September 27, 2016

9:00 a.m. to 12 noon

Orting Public Safety Building, 401 Washington Avenue

Attendees

Mark Bethune, City of Orting
Josh Penner, City of Orting
Nicola McDonald, City of Orting
Eric Mendenhall, City of Sumner
Jesse Hamashima, Pierce County
Gary Hendricks, Pierce County
Eric Chippis, Sound Transit
Scott Jones, Tehaleh/Newland Communities
Shawn Bunney, Citizen

WSDOT

Dennis Engel, Olympic Region Planning
Nazmul Alam, Olympic Region Planning
T.J. Nedrow, Olympic Region Planning
Yvette Liufau, Olympic Region Planning
Joseph Perez, Olympic Region Traffic
Ming-Bang Shyu, Headquarters TDGO
Courtney Rudy, Headquarter MMP

Welcome/Introductions

T.J. Nedrow, WSDOT's study lead welcomed everyone and led the introductions around the table. The meeting agenda was reviewed with no suggested changes.

Study Status

T.J. reviewed with the committee members the study challenge to recommend suitable strategies to move forward that meet current and future travel needs along the SR 162 corridor. He mentioned the end result of the study will be to produce a list of prioritized strategies to address the SR 162 corridor needs for the next 20 years. The next stakeholder committee meeting will be a review and discussion of the ranked list of ideas.

T.J. explained to the members the latest tasks the study team has been engaged in. An initial screening of ideas was completed by the study team, the unranked list of strategies composed and study model and evaluations. Dennis Engel, summarized a briefing to elected officials held on September 15th where 18 people, 7 elected and 8 agency staffers along with 3 citizens attended to hear an update of the study.

The stakeholder committee was briefed on the study schedule. T.J. described the adjustments made reflected in the current meeting agenda and the importance of further explaining the modeling and what the results are forecasting for the corridor over the 20 years horizon. At Meeting #5 the study staff will walk the committee through the ranking process. The stakeholder committee will be expected to take concurrence action on the Study's ranked strategies. It was also noted that two public information sharing sessions will be scheduled for November 15 and November 16 (REVISED date). Following the public meetings, study staff will focus on composing the study report scheduled to be published in the spring of 2017.

T.J. expressed appreciation to the members for their efforts in participating in the study and on the committee. Of the previous three meetings, Meeting 1 provided an orientation of the study and introduced documents used to guide the study. Meeting 2 saw the approval of the study's guiding documents, a presentation and discussions about the existing conditions, and the brainstorming of ideas for strategies to improve the corridor. Meeting 3 covered the results of the online survey and a discussion of the Study Team's initial screening and Stakeholders' detailed screening of the brainstormed ideas.

This meeting (Meeting 4), T.J. explained, will include an in depth discussion about the modeling results and scenarios that were analyzed and the upcoming ranking efforts for the next stakeholder committee meeting.

Modeling and Evaluation Results

Ming-Bang Shyu, WSDOT Headquarters gave a detailed presentation on the results of the modeling that's been conducted to date. Three main categories of strategies were evaluated and presented, the recommendations are listed below.

- Travel Demand Management (TDM)
 - TDM along SR 162 corridor
- Roadway Improvements
 - Signal optimization
 - Roundabouts
 - Reversible lanes (evaluated – not recommended)
 - 1997 Route Development Plan improvements
- Public Transportation Improvement
 - Train or commuter rail service needed and to include a route-end stop at 128th/SR 162. Rail service would connect the McMillin station to the Puyallup Sounder Station.

These categories could also be grouped into short-term, mid-term or long-term strategies. The signal optimization and roundabout would be short term strategies. TDM would be mid- and long-term strategy. The Public transportation improvement such as extension of commuter rail and widening or adding capacity type of strategy would be long term strategies.

Ming again reminded the committee that the TDM strategy includes the following effective tools and techniques that could be applied such as Commute Trip Reduction programs, telework, vanpool programs and ride-matching, and a flexible work shift. Transportation Demand Management is defined as “a community-based approach that relies on collaboration, commuter information and incentives to influence the travel patterns and commuter choices.” Based on WSDOT's experience, with ideal TDM techniques employed with an overall reduction in travel demand set at 3% for the years 2025 and 2035. The question came up whether Orting has looked into setting up park and ride lots at the park or at Safeway store. The park is being used currently as a park and ride lot, but staff have not yet discussed it with Safeway management. The thinking is the parking area is near capacity now in supporting the area business complex.

The Public Transportation improvement strategy includes the S-16 Rail extension from Puyallup to Orting, ST3. Ming explained this is one of the candidate projects Sound Transit has provided in the 2016 ST3 voters package, which would provide some improvement actions for the study corridor. The following information is the overall ST16 proposal and forecast:

- Peak headway: 30 minutes
- By 2040 Daily Boarding would be approximately 1,000 passengers
- 125 car surface parking at proposed station location in McMillin/128th Street vicinity

The modeling assumptions include:

- The ridership would be constrained by the capacity of the park & ride lot which has been restrained further by the amount of suitable property. Sound Transit forecasted that the riders would be proportioned by the following modes: 120 SOV (60%) riders, 20 Carpool/vanpool (10%) riders, and 60 riders who walk, bike or are dropped off. Total is 200 riders at peak hour
- The proportion of total riders who would have used SR 162 between McMillan and Sumner if they drove is 30%. Thirty percent of 200 vehicles are 60 vehicles can be reduced on SR 162 at peak hour.
- Given the apportion of the ridership and the park and ride lot utilization, we assumed 50% more trips can be reduced on SR 162. One hundred and fifty percent of 60 vehicles equals 90 vehicles can be reduced on SR 162 at peak hour generally between 128th Street and Pioneer Way. Two thirds of the vehicles are traveling to/from Pioneer Way and 1/3 is traveling to/from Sumner.
- The reduction would be northbound in AM traffic and southbound in PM traffic.
- For long-term Year 2035

Eric Chipps of Sound Transit also explained that this is one of the candidates in ST3. The land use nearby and the current ridership at the near stations were considered for the ridership forecast for the proposed station at 128th Street. He also mentioned Sound Transit plans to expand parking at the Sumner station.

In Ming's discussion of the Development of Roadway strategies, he explained the following roadway improvement strategies were analyzed and evaluated.

- Short Term Strategies (Year 2020):
 - Signal Optimization using Synchro
 - Roundabout at 128th Street and Military Road
- Long Term Strategies (Year 2035)
 - Reversible lanes
 - One additional lane in the peak direction (northbound in AM and southbound in PM)
 - Signal modification would be needed to accommodate the middle reversible lane movements, which would be left-turn and through shared lane. It would become split phases for northbound and southbound approaches. They can no longer run concurrently.
 - 1997 Route Development Plan improvements
 - Highway Mobility Recommendations
 - SR 410 to Pioneer Way would include widening to a five lane roadway
 - Pioneer Way to 144th Street would include widening to a four lane roadway
 - 144th Street to Whitesell Street would include widening to a five lane roadway

The proposed lane configurations at intersections under the AG list were also included and modeled. The study team evaluated and analyzed each strategy individually. Intersection LOS and travel time per 1/10 mile were used as performance measures.

Ming discussed with the group the traffic operation analysis for 2020 that was conducted. Intersection LOS was analyzed and with a signal optimization strategy, comparing it to no build (or no action) in the AM peak hour the average intersection delay per vehicle could be reduced by 21% for the 11 intersections combined. In the PM it would be reduced by 16%, although there still are four intersections showing a LOS F. If the intersections at 128th Street and Military Road were converted to roundabouts in 2020, the average intersection delay would be reduced about 3 seconds at Military Road and about 18 seconds at 128th Street in the AM peak hour. In the PM peak hour the intersection delay would be reduced about 91 seconds and 20 seconds at Military Road and 128th Street intersections.

Ming provided for the group some information about travel time in 2020. He explained signal optimization considers the intersection efficiency for all approaches. Therefore, the optimization may not only favor the northbound and southbound directions. In the travel time analysis the Synchro modeling of signal optimization and roundabout strategies suggest an increase in total travel time for the entire study corridor. This is mainly due to the signal optimization while analyzing the travel time for northbound and southbound directions. Both northbound and southbound directions are no longer favored approaches. It is to compensate and tradeoff with other approaches during the optimization.

With roundabout conversions at two intersections, there would be fewer delays at those two locations and vehicles will go through more quickly. However, without any changes on the rest of the corridor, the traffic would be more congested on the remaining segments along the corridor.

Ming described the traffic operation analysis for 2025. With the TDM strategy, comparing it to the no build scenario (or no action) in AM peak hour, the average intersection delay per vehicle could be reduced by 28% for 11 intersections combined with one intersection, which is at 128th Street, still would operate at a LOS F. In the PM it would be reduced by 22%, although there are still five intersections showing LOS F. Looking at travel time with the TDM strategy, in the AM peak hour the travel time would be reduced by almost 19% in the northbound direction for all segments combined. However, in the PM peak hour, the TDM would increase the travel time. The reason is the travel pattern and the trip distribution would change due to the overall 3% trip reduction per the Pierce County model. The volumes along SR 162 are actually very similar to the no action option. Plus the signal optimization which considers all approaches would not favor the northbound and southbound directions only. A question was asked as to why the LOS at 128th Street would be so bad during the AM peak hour in 2025? The study team responded that with the growth and without any roadway improvements (intersection geometry changes or roadway widening), the westbound and northbound shows significant delays, particularly the westbound left turn and right turn movements.

The traffic operation analysis for 2035 resulted in four strategies being analyzed and evaluated for Year 2035. In the AM peak hour except reversible lane strategy, TDM, 1997 plan and Public transportation strategies would reduce the average intersection delay by approximately 35%, 75% and 36%. Similarly, in the PM peak hour the average intersection delay would be reduced by 32% to 69%. The 1997 Route Development Plan strategy shows the highest reduction in intersection delay in both the AM and PM peak hours and fewer intersections would operate at LOS F.

Pierce County staff asked the study team to provide the lane configuration diagrams at each intersection so people could easily understand and visualize the improvements. The study team agreed to provide snapshots from Synchro model at each intersection and put them in the final report.

The Reversible Lane strategy would increase the average intersection delay in both the AM and PM peak hours Ming explained. Because of the middle reversible lane configuration, it has to become left turn and through shared lane. The signal phases for the northbound and southbound direction can no longer run concurrently. It has to become split phase setting and intersection performance would not operate as efficient as regular signal phase setting. Similar to the Year 2025 TDM strategy, the travel time would not be reduced. It is because the travel pattern and the trip distribution would change due to the overall 3% trip reduction county wide. The volumes along SR 162 are actually very similar to the no action option in 2035. Signal optimization was also applied to consider the efficiency for all approaches. The analysis resulted in the reversible lane strategy being dropped, due to the poor performance. The 1997 plan would reduce the travel time the most with the proposed intersection lane configurations as in the strategy list under AG.

After evaluating and analyzing the strategies individually, each strategy does not improve the corridor back to an acceptable level over the long-term. Several intersections would still operate at LOS F and much longer travel time comparing to existing condition. It was stressed that the per WSDOT's Practical Solutions approach the introduction of incremental short and mid-term strategies must be further refined and consider over time to manage corridor performance. The study team developed the following three combinations of strategies:

- TDM + Roadway improvement
- Public transportation improvement + Roadway improvement
- Public transportation improvement + TDM + Roadway improvement

Ming explained the average intersection delay would be reduced with more strategies combined. However, several intersections would still experience LOS F condition. Travel time also shows more reduction when strategies were combined, but delays would still occur at several key locations. To wrap all of the information up, the results of the analysis are:

- Given the high travel demand on SR 162 in the future, all the strategies evaluated thus far and others yet to be conceived would be needed in order to improve desired corridor performance long term.
- The strategies that were analyzed and evaluated indicated that it is not enough to make the corridor to the acceptable level or meeting the expectations (as noted in the study goal). The strategies would need to be continuously implemented and enhanced, for example more and better TDM techniques, reintroduction of public transportation services, and increased services to meet demands, etc. More strategies could be considered as they emerge in the future and be introduced to influence the travel patterns and improve performance along the corridor.

Ranking Discussion

T.J. raised the strategy ranking with the committee members. He presented to the group a map tying the location of ideas and strategies for the study corridor. T.J. showed the following formal identified strategies that shall be included in the reported strategies outside of ranking:

- I TDM opportunities for the SR 162 corridor**
Strategies aimed at changing behavior rather than expanding the transportation network to meet travel demand. Such Strategies can include the promotion of work hour changes, rideshare options, parking policies, and telecommuting.
- Q Public Transportation Services**
Train and transit service opportunities that could advance in the short, mid or long-term.
- Y Dedicated incident turnout areas located along the SR 162 corridor**
WSDOT outside of the study may address this as funding opportunities are available.
- AG 1997 RDP improvements (specifically, TDM, PnR lots, and non-motorized improvements. Does not include roadway widening and intersection and channelization strategies.)**
Implementing various improvements documented in the 1997 report
- AL Improve signal timing & signal interconnect (#AM) (WSDOT Operational actions)**
WSDOT will continue to address signal timing and interconnect as a course of doing business.

T.J. suggested the study team take the strategies list and rank it based upon the data that has been shared at this meeting. The study team will provide the stakeholder committee members with a recommended draft of the ranked list to review a week prior to (REVISED date) November 9th stakeholder committee meeting. The committee was in agreement with the process and reviewing the ranked strategies list prior to the October meeting. The ranking shall include planning level cost estimates for the strategies recommended.

Meeting Recap / Next Steps

T.J. reviewed with the committee the next steps moving forward. The next stakeholder committee meeting #5 will be held on Wednesday, October 26th at the City of Orting Public Safety Building. At this meeting members will have reviewed the ranked strategies and come prepared to discuss and approve them. Study public information sharing sessions are tentatively planned for November 15 & 16 in Orting and in Sumner. T.J. noted to the group that the study report is scheduled for release in the spring 2017. The draft will be made available for each committee member to review and offer comments. The stakeholder committee expressed their appreciation to the study team of all of the good work that's been done. Meeting was adjourned at 12:00pm.